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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/357,585	07/20/1999	GEORGE KOPPICH	36J.P225	9436

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RAHIMI, IRAJ A

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	ge
	09/357,585	KOPPICH ET AL.	
	Examiner (Iraj) Alan Rahimi	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 20 July 1999.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 08 September 1999 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4&7</u> .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer (US patent 5,793,414) in view of Bum (US patent 6,285,685).

Regarding claim1, Shaffer discloses a method for providing for printout of print job at a printer connected to a set top box, in which the set top box is connected to a cable head end via a digital cable network, comprising:

receiving a print job from a source at the cable head end, the print job being received in a printer-independent format, and including address information designating at least one home printer connected to a respective set top box; based on the address information, accessing a user directory so as to determine information identifying type and configuration of the printer (column 3, lines 43-55);

creating a logical software printer at the cable head end, and executing a print driver corresponding to the printer identifying information in the logical printer, so as to render the printer independent print job into a rasterized bit map image that is specific for the ultimate destination printer; (column 3, lines 27-31) and transferring the rasterized bit map image over the digital cable network to the set top box to which the destination printer is connected (column 3, lines 53-61).

However, Shaffer does not teach connectivity to Internet for supply of Internet based printing data, nor does he teach sending print data to the set top box in printer independent format. Bum teaches connection between the head end and Internet and to set top box (Figure 1 and column 2, lines 12-27). It is also well known in the art that page description language commands are independent of the printer. Therefore, print data can be in form of page description language. Schaffer and Bum are analogous art because they are from the same field of endeavor that is interactive data communication. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine Bum with Shaffer to increase print data availability beyond what is stored in the program content storage 20.

Regarding claim 2, Shaffer discloses a method according to Claim 1, further comprising the steps of creating, at the set top box, another logical printer with a simplified print driver that accepts rasterized bit map print jobs, and of accepting the rasterized bit map print job by the logical printer for visual printout (column 3, lines 43-55).

Regarding claim 3, Shaffer discloses a method according to Claim 1, wherein the rasterized bit map image created at the cable head end includes all needed printer commands for the target printer (column 3, lines 27-30).

Regarding claim 4, Shaffer discloses a method according to Claim 3, wherein the rasterized bit map print data is formatted to a format needed by the target printer (column 3, lines 27-30).

Regarding claim 5, Shaffer discloses a method according to Claim 1, further comprising the step, at cable head end, of automatically detecting the identification information for the type and configuration of printer attached to the set top box, by requesting such information from the set top box, and thereafter automatically obtaining a suitable print driver (column 3, lines 27-30 & lines 43-55).

Regarding claim 7, Shaffer discloses a method to print a print job received by a cable head end on a printer connected to a set top box that communicates with the cable head end over a high-speed communication network, the print job being received by the cable head end in a high level printer description language addressed to one or more such printers, the method comprising the steps of:
obtaining a software driver for the printer at the cable head end, the software driver being obtained based on the address and corresponding to configuration and type of the addressed printer (column 3, lines 27-32);

creating a logical printer in the cable head end, the logical printer corresponding to the software driver;
executing the logical printer so as to rasterize the high level printer description language print job a rasterized bit map image format (column 3, lines 43-55); and

transmitting the rasterized bit map image format over the high speed data communication network to the set top box addressed in the print job (column 4, lines 53-62). Shaffer discloses the general principals of processing print jobs. It is well known in the art that a printer driver is necessary for processing print data for a given printer. And processing of data includes rasterization of original image to bit map data so the print engine can print the image on a sheet of paper. Rasterization can occur in the printer or at the host, as it is the case here.

Regarding claim 8, Bum discloses a method according to Claim 7, further comprising the steps, at the set top box, of creating a logical printer corresponding to a locally connected printer, with the logical printer accepting as its input the rasterized bit map image data, and of routing the rasterized image data from the set top box's logical printer to the locally connected printer (column 3, lines 43-55).

Regarding claim 9, Bum discloses an apparatus for providing for printout of an internet-based print job at a printer connected to a set top box, in which the set top box is connected to a cable head end via a digital cable network, comprising:

a program memory for storing process steps executable to perform a method according to any of Claims 1 to 8; and a processor for executing the process steps stored in said program memory (Memory 84), and

a processor (CPU 86) for executing the process steps stored in said program memory.

Regarding claims 10 and 11, arguments analogous to those presented for claim 9, are applicable.

3. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer (US patent 5,793,414) in view of Bum (US patent 6,285,685) and further in view of Gottfreid to (US patent 6,076,076).

Regarding claim 6, Shaffer in view of Bum does not teach a method according to Claim 1, wherein the print driver is obtained by downloading over the Internet. Gottfried teaches in column 2, lines 29-43 downloading printer drivers from Internet. Shaffer, Bum and Gottfreid are analogous art because they are from the same field of endeavor that is printing in a network environment. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine Shaffer in view of Bum with Gottfreid to save processing time, and disk storage space.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 703-306-3473. The examiner can normally be reached on Mon.-Fri. 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.


AR
November 12, 2002


EDWARD COLES
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